

WHAT IS CLAIMED IS:

1. A microwaveable food storage container comprising:

5           (a) a unitary base having a generally planar bottom portion and a sidewall  
              extending generally upwardly therefrom, the sidewall of the base  
              including base sealing means for cooperating with a lid to form a seal;

              (b) an injection-molded lid provided with:

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                  (i) resettable freshness indicator means at least in part integrally  
                      formed with the lid;

                  (ii) a resealable vent integrally formed in the lid; and

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                  (iii) lid sealing means for cooperating with the base sealing means  
                      to form an annular interference-fit seal when the lid and base  
                      are joined to form a closed container.

20       2. The microwaveable food storage container according to Claim 1, wherein the  
          base is an injection-molded base.

3. The microwaveable food storage container according to Claim 2, wherein the  
      lid and base are formed from a polypropylene resin.

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4. The microwaveable food storage container according to Claim 3, wherein the  
      polypropylene resin composition comprises isotactic polypropylene.

5. The microwaveable food storage container according to Claim 3, wherein the  
30       polypropylene resin composition comprises a propylene/ethylene copolymer.

6. The microwaveable food storage container according to Claim 1, wherein the resettable freshness indicator means comprises a plurality of bistable, eversible domed regions integrally formed on the lid.
- 5 7. The microwaveable food storage container according to Claim 6, wherein the domed portions are generally thinner at their junctions with adjacent portions of the lid than the adjacent portions of the lid.
8. The microwaveable food storage container according to Claim 7 wherein the  
10 bistable, eversible domed portions of the lid have a peripheral portion which is less than about 50% of the thickness of adjacent areas of the lid.
9. The microwaveable food storage container according to Claim 8, wherein the  
15 bistable, eversible domed portions have a generally planar central portion.
10. The microwaveable food storage container according to Claim 6, wherein the bistable, eversible domed portions are generally thinner than adjacent portions of the lid over their profiles.
- 20 11. The microwaveable food storage container according to Claim 10, wherein the bistable, eversible domed portions of the lid have a thickness which is 50% or less than the thickness of the adjacent portions of the lid.
12. The microwaveable food storage container according to Claim 11, wherein the  
25 bistable, eversible domed portions of the lid have a generally planar central portion.
13. The microwaveable food storage container according to Claim 1, wherein the  
30 resealable vent comprises a hinged vent panel integrally formed in the lid and secured to the lid at the lid's periphery.

14. The microwaveable food storage container according to Claim 13, wherein the resealable vent comprises a vent conduit integrally formed in the lid and extending therethrough and the vent panel includes a sealing element integrally formed therewith adapted to seal the conduit.
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15. The microwaveable food storage container according to Claim 14, wherein the sealing element includes terminal projections configured to provide an audible indication sealing or unsealing the vent.
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16. The microwaveable food storage container according to Claim 15, wherein the sealing element is a segmented closure element.
17. The microwaveable food storage container according to Claim 14, wherein the vent conduit and closure elements have sealing shoulders configured to engage each other to form a seal.
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18. The microwaveable food storage container according to Claim 1, comprising:
- (a) a unitary base having a generally planar bottom and a sidewall extending generally upwardly therefrom,
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- (i) the sidewall defining an upper sidewall portion including an inwardly projecting annular sealing protuberance;
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- (ii) the base further including a rim extending outwardly from the upper sidewall portion of the base; and
- (b) a unitary lid having a generally planar upper surface as well as:
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- (i) a downwardly extending sealing band adapted to cooperate

with the inwardly projecting annular sealing protuberance of the upper sidewall of the base to form an annular interference-fit seal; and

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10                   closure of the container.

19. The microwaveable food storage container according to Claim 18, wherein the sealing protuberance of the uppermost sidewall portion of the base is at least about 1.25 times the thickness of the adjacent sidewall portions of the base.

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20. The microwaveable food storage container according to Claim 18, wherein the annular interference-fit seal formed between the sealing band and the sealing protuberance of the upper sidewall of the base is a continuous annular seal.

20   21. The microwaveable food storage container according to Claim 18, wherein the downwardly projecting wall of the lid rim and the sealing band of the lid generally define an inverted U-shaped profile.

22. The microwaveable food storage container according to Claim 21, wherein the  
25       lid further comprises a downwardly extending intermediate spacer projection between the sealing band and the downwardly projecting outer wall of the lid rim.

23. The microwaveable food storage container according to Claim 22, wherein the  
30       rim of the base is an inverted U-shape.

24. The microwaveable food storage container according to Claim 23, wherein the downwardly extending intermediate projection of the lid is configured to adjust the clearance of a downwardly projecting outer leg of the lid rim and a locking bead on the outer leg of the base rim to a clearance between about 0  
5 and about 5% when the lid and base are joined together.

25. The microwaveable food storage container according to Claim 23, wherein the inverted U-shape of the lid rim is sized to compress the inverted U-shape of the base rim to form a second interference-fit seal around at least a portion of  
10 the container when the lid and base are joined together.

26. The microwaveable food storage container according to Claim 18, wherein the undercut on the lid rim cooperates with the outer edge of the base rim to form another leakage barrier.  
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27. A microwaveable storage container according to Claim 1, comprising:

(a) a unitary base having a generally planar bottom portion and a sidewall portion extending generally upwardly therefrom;  
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(i) the sidewall defining an upper sidewall portion including a sealing notch disposed on an interior side of the sidewall having an inwardly projecting annular sealing protuberance at the outward side of the notch and an inner notch wall at the  
25 inward side of the notch;

(ii) the base further including a rim extending outwardly from the upper sidewall of the base;

30 (b) a unitary lid having a generally planar upper surface as well as:

- 5 (i) a downwardly extending sealing band adapted to cooperate with the inwardly projecting annular sealing protuberance of the upper sidewall of the base to form an annular interference-fit seal; and
- 10 (ii) a lid rim extending outwardly with respect to the sealing band, the lid rim having a downwardly projecting outer wall optionally provided with an undercut adapted to cooperate with the outer edge of the base rim to audibly indicate secure closure of the container.
- 15 28. The microwaveable food storage container according to Claim 27, wherein the downwardly extending inner notch wall includes a substantially vertical portion and an upper chamfered portion which extends downwardly and outwardly.
- 20 29. The microwaveable food storage container according to Claim 28, wherein the annular sealing protuberance at the outer side of the notch includes a substantially vertical portion.
30. The microwaveable food storage container according to Claim 27, wherein the sealing protuberance is thicker than adjacent portions of the base sidewall immediately above the sealing protuberance.
- 25 31. The microwaveable food storage container according to Claim 27, wherein the inner notch wall of the sealing notch is thicker than the sidewall of the base immediately below the inner sealing notch wall.

32. A microwaveable storage container according to Claim 1, comprising:

5 (a) a unitary base having a generally planar bottom portion and a sidewall portion extending generally upwardly therefrom;

10 (i) the sidewall defining an upper sidewall portion including a sealing notch disposed on an interior side of the sidewall having an inwardly projecting annular sealing protuberance at the outward side of the notch and an inner notch wall with a downwardly extending inner surface at the inward side of the notch;

15 (ii) the base further including a rim extending outwardly from the upper sidewall of the base;

(b) a unitary lid having a generally planar upper surface as well as:

20 (i) a downwardly extending annular sealing band adapted to cooperate with the inwardly projecting annular sealing protuberance of the upper sidewall of the base to form an annular interference-fit seal; and

25 (ii) wherein the annular sealing band of the lid and the sealing notch of the base are configured so that the sealing band becomes wedged in the notch when the lid and base are joined together to form a closed container; and

30 (iii) a lid rim extending outwardly with respect to the sealing band, the lid rim having a downwardly projecting outer wall optionally provided with an undercut adapted to cooperate

with the outer edge of the base rim to audibly indicate secure closure of the container.

- 5        33. The microwaveable storage container according to Claim 32, wherein the downwardly projecting wall of the lid rim and the sealing band of the lid generally define an inverted U-shaped profile and the rim of the base is an inverted U-shape.
- 10       34. The microwaveable storage container according to Claim 32, wherein the lower edge of the sealing band is configured to cooperate with the downwardly extending inner surface of the inner notch wall of the base to form another leakage barrier when the lid and base are joined together to form a closed container.